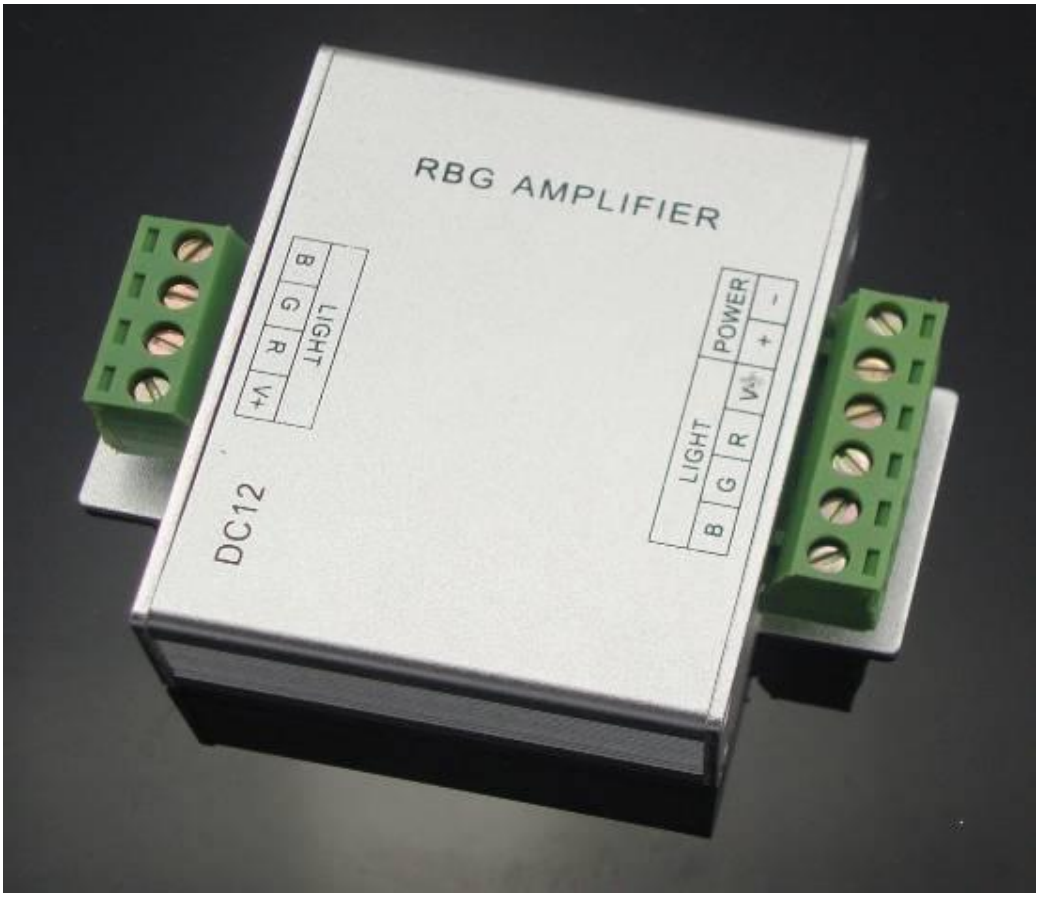
T85-(RGB)

LED Amplifier

User Manual



Before using this amplifier, please read this brochure carefully.

- **Instructions**

Thanks for using T85-(RGB) led amplifier of our company. Before installation, please read this manual carefully to ensure fully understand and proper use in order to avoid unnecessary damages to the controller.

Before using, please check to confirm whether there is any damage caused during the transport process, if there is, please notify your supplier and do not use the product.

- **After-sale services**

Warranty of this product is one year, in this period we guarantee repairing or replacement service with no charge if it is normally used according to the instruction.

If the customer does not follow the instructions and following provisions in this manual, which results in product damage, the supplier is not responsible for any problems arising and defects, even in the warranty period, maintenance costs borne by the customer.

1. Damage caused by misuse, such as not in accordance with the instructions.
2. Damages caused by unauthorized removal, repair, modify of the circuit; incorrect connection and replacement of the chips.
3. Damage caused by transportation, shock, falling after purchase.
4. Damage caused by earthquake, fire, flood, lightning and abnormal voltage.
5. Damage caused by negligence or improper maintenance, such as storage at high temperature and humid environment, vicinity of hazardous chemical substances.
6. Replacement of products.

- **Instructions for safety**

Making sure you use the product perfectly and safely, please observe the instructions and warning on this manual. Operate cautiously and read these instructions carefully.

1. For installation, try to avoid the minefields, strong magnetic field and high-pressure area.
2. Ensure that the wire is connected correctly and firmly in order to avoid short-circuit damage to parts and posing a fire hazard.
3. Please install controller in a well-ventilated place to ensure that the ambient temperature is moderate.
4. Before using this product, please check the DC power and voltage meet the product technical requirements; positive and negative polarity is defined consistent to the product.
5. Prohibit live wiring, check to confirm wiring is correct, if no short-circuit, then power!
6. If any problems do not make unauthorized repairs. Any doubts please contact your local supplier.

This manual applies only to this product of our company, subject to changes without notice.

- **Introduction**

T85-(RGB) series LED amplifier is a smart RGB three colors amplifier dedicated to long-illumination LED light, using the most advanced PWM (Pulse Width Modulation) digital control technology. It is available to commercial use and it can be installed visibly or invisibly. The installation of LED amplifier can meet the light requirements of commercial or family lighting at different times and different circumstances, to extend the LED life span, and save energy.

1. Technology specifications

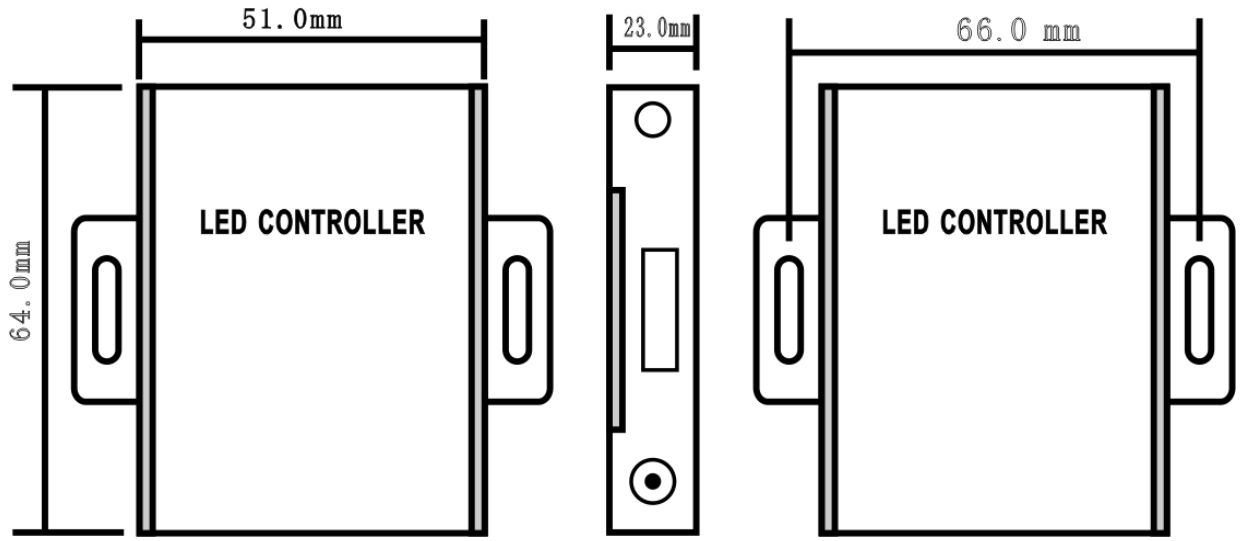
Type	T85-(RGB)
Input voltage	DC12V~24V
Output signal	Three-way RGB signal
Max loaded current	12A (3*4A)
Power	144W (12V)/288W(24V)
Dimension	L76*W64* H24 (mm)
Packing dimension	L85*W42*H95 (mm)
Gross weight	85.0g

2. Functions

1) RGB full color strip amplifier
2) To enlarge the signal
3) Silver shell
4) Three-way RGB signal (common anode or cathode)
5) Can be controlled by PWM (Pulse Width Modulation) technology.

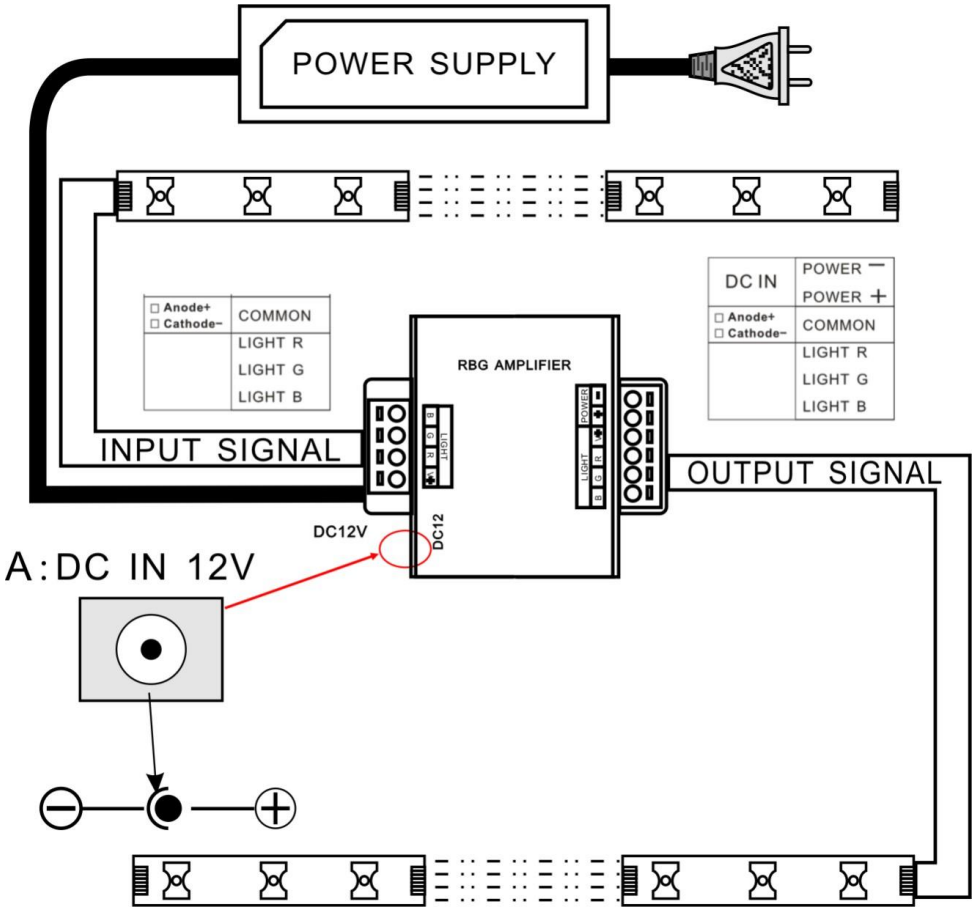
3. Structure

(1).View of the amplifier (chart 1)



4. Connection diagram of amplifier

(1).Diagram of connection to low power LED: (chart 3）



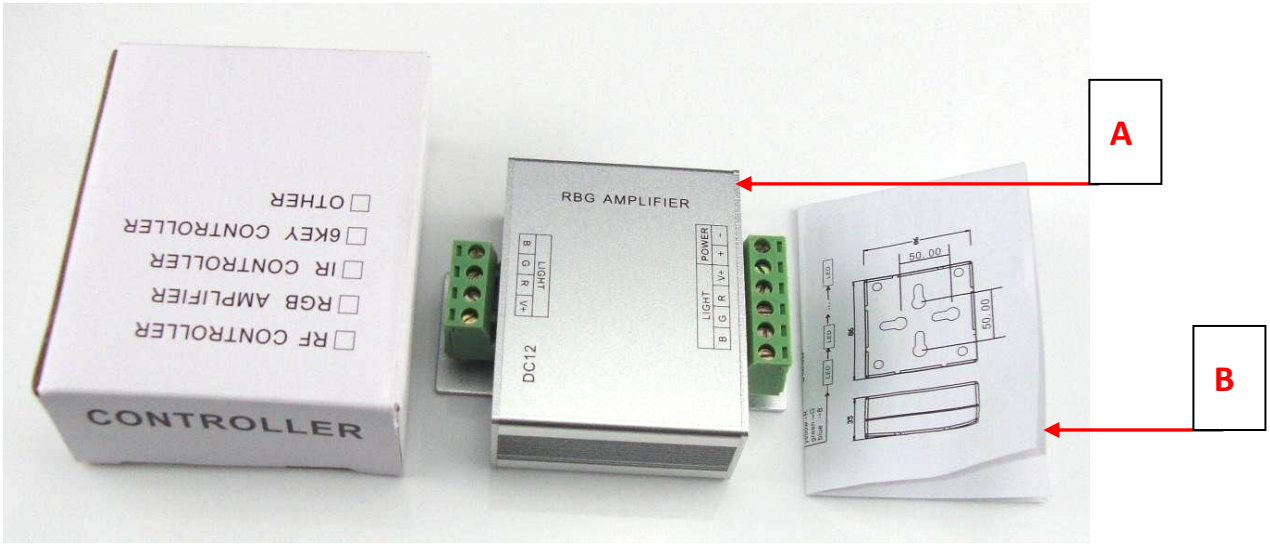
5. Failure analysis and solutions (table 2)

Failures	Analysis	Solutions
No light	1. No power. 2. Reversed polarity connection. 3. Wrong connection or poor contact. 4. LED light has been bad.	1.Check the power 2. Make sure the polarity is right. 3. Re-check wire connection.
Brightness of LED is not consistent	1. Input wire is too long to cause wire loss. 2. Diameter of wire is too thin to cause wire loss. 3. Power overload. 4. Controller overload.	1. Shorten wire or use loop circuit. 2. Calculate the current, and then replace for a thicker wire. 3. Replacement of a larger power. 4. Add a power amplifier.

Tips: The effective power is generally only 80% of the marked power, so it is recommended in selecting the power supply, the user choose a slightly larger one than the LED load power, at least for more than 20%.

6. Packaging

(1).Packaging details (chart 4)



(2).Packaging list (table 4).

Symbol	Name	Picture	External dimension（mm）	QTY	Unit
A	T85A/A(RGB) Amplifier		L76*W64*H24	1	PCS
B	User Manual	85E0RGB	A6 sheet	1	PCS